

Date: Wednesday, 3/8/2006 10:37:51 AM  
User: Kim Johnston

## Process Sheet

Split

Customer : CU-DAR001 Dart Helicopters Services  
Job Number : 26108 -2  
Estimate Number : 12219  
P.O. Number : N/A  
This Issue : 3/8/2006 S.O. No. : N/A  
Prsht Rev. : NC  
First Issue : N/A Type : PURCHASED PARTS  
Previous Run : N/A  
Drawing Name : SHROUD ASSEMBLY  
Part Number : D34675  
Drawing Number : D3467 REV.A  
Project Number : N/A  
Drawing Revision : A  
Material : N/A  
Due Date : 3/31/2006 Qty: 10 Um: Each  
Written By : SEE COMMENT BELOW  
Checked & Approved By : 06.03.08  
Comment : est rev. A 06.02.06 new issue EC

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 OUTSIDE SERVICE OUTSIDE SERVICES



Comment: Sub-Contracting Issue P/O: 00000768 06/03/09  
Email or Ship DXF file to vendor  
Laser Cut per Dwg D3467 flat pattern D3467-5F  
Material release note required

2.0 D34675F AFT PLATE FLAT PATTERN



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)  
DOUBLER FLAT PATTERN

3.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1  
Receive & Inspect For Transit Damage  
Ensure material certification is attached

06.03.22 (10)

4.0 QC6 DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

06.03.22 (10)

5.0 SMALL FAB 1 SMALL &amp; MEDIUM FAB RESOURCE 1



Comment: SMALL &amp; MEDIUM FAB RESOURCE 1

1-Debur SAP 06.03.22 (10)

2-Form as per dwg D3467 using DT8855

06.03.23 (8) (10)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
	5	One Jaken Ser template	B	060323/		B Q&P	B 060323

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: B Date: 06/04/20  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 3/8/2006 10:37:51 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHROUD ASSEMBLY

Job Number: 26108

Part Number: D34675

Job Number:



Seq. #:	Machine Or Operation:	Description :
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6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB 06/04/25 ③

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

1 B0604-25 ③

8.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

1 B0604-26 ③

Job Completion



11 0604.26



**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

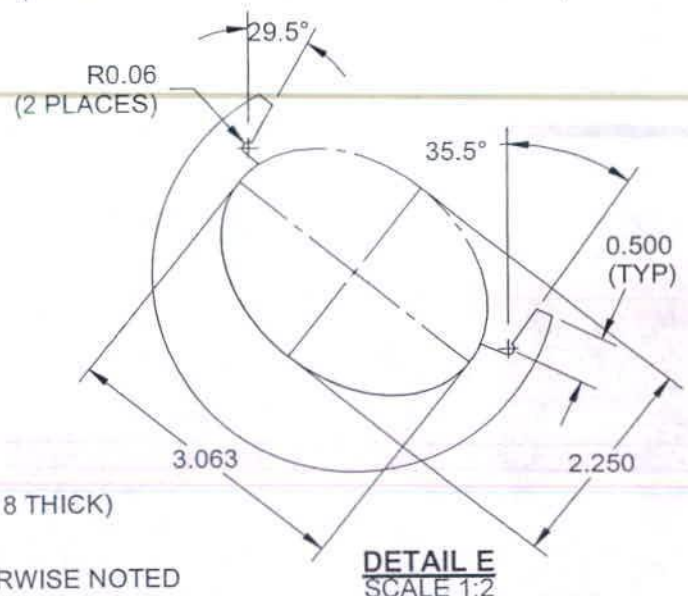
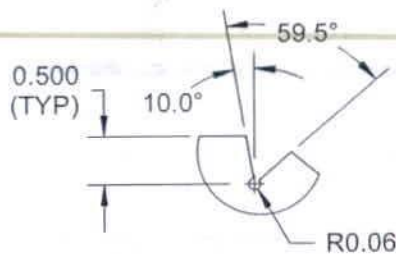
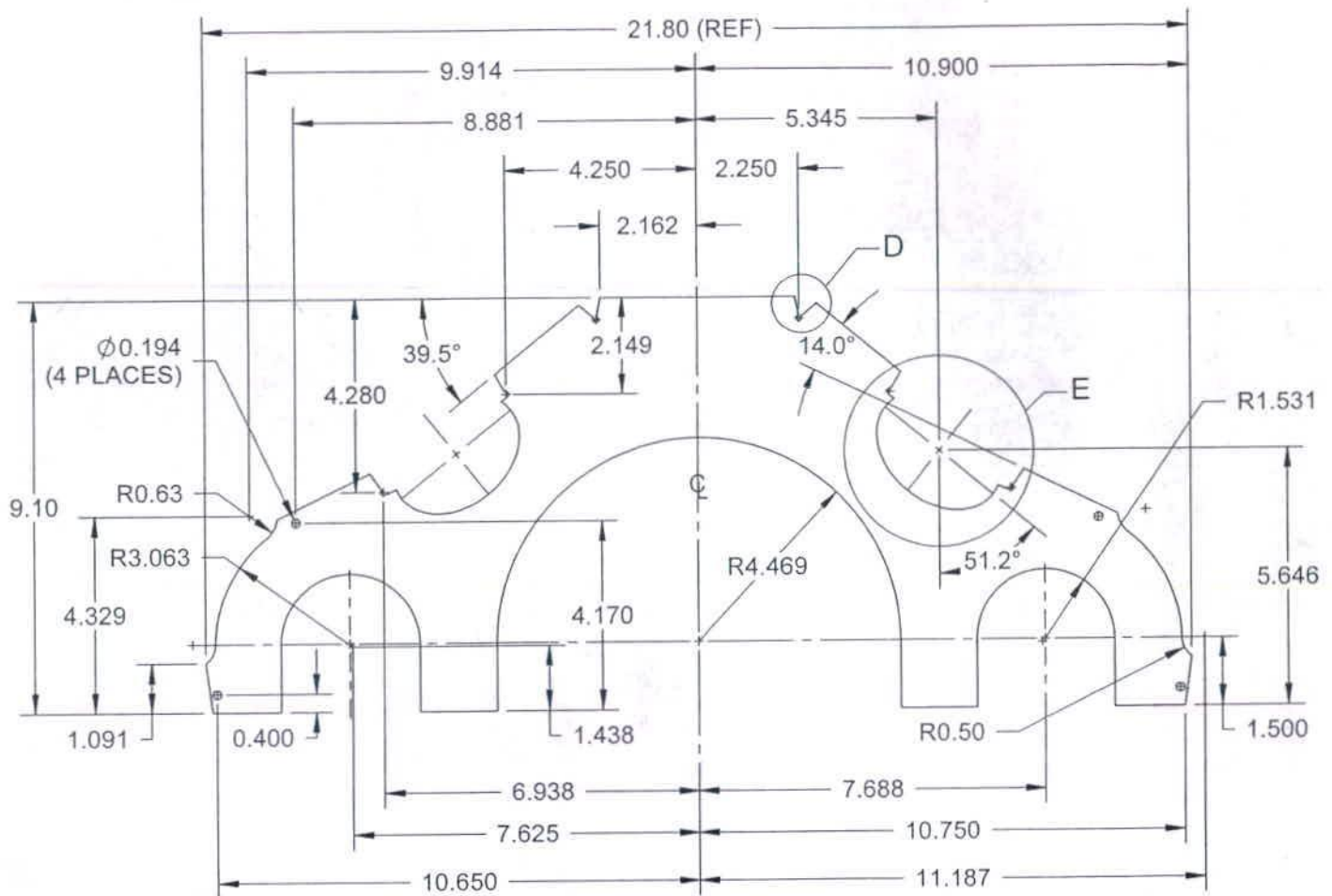
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

PRELIMINARY ISSUE

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3467	REV. A SHEET 8 OF 15
DATE 05.12.07		TITLE SHROUD ASSEMBLY	SCALE 1:8



### D3467-5F AFT PLATE FLAT PATTERN

#### NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH 26 GAUGE SS (0.018 THICK) (REF. DART SPEC. M304S26GA)
- 2) PART IS SYMMETRICAL ABOUT CENTERLINE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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4.465  
4.465  
8.930



3/17/06

604-946-453 ATTN: PETE

03/17/2006 14:36 FAX 604 946 4153  
03/17/2006 14:18 FAX 604 272 9137INDUSTRIAL LASER CUTTING  
INTEGRIS METALS002  
001/004

3/17/2006 1:57 PAGE 001/002 Fax Server

Ryerson


F-587

T-726 P-007/015

253-288-9888

FROM-INTEGRIS

MAY-17-2005 18:05

		<b>AK Steel Corporation</b> <b>Metallurgical Test Report</b> <b>Coshocton Works</b> <b>Coshocton, OH 43812</b>		Page 1											
				Lead No. 7410672 SRN No. 7410672											
CUSTOMER INTEGRIS METALS PO BOX 340 MINNEAPOLIS, MN 55440	SHIP TO INTEGRIS METALS 306 'B' STREET ALBURN, WA 98001	MILL ORDER NO. 772185-0191		PROCESSOR ORDER NO. 427135-01											
		BUYER'S ORDER NO. 427135-01													
		PART NO. 741351497													
		ENGLISH UNITS -PRODUCT- METRIC UNITS 3175 NOM 48.090 X COIL													
SKID ID	PIECE	HEAT	PARENT COIL ID	NET WEIGHT											
SKD713143	1	7250151	0549919-01	3,445 LBS. 4012 KG.											
SKD713144	1	7250151	0549919-01	3,470 LBS. 4013 KG.											
SKD713145	1	7250151	0549919-01	3,425 LBS. 4008 KG.											
SKD713149	1	7250151	0549919-02	3,401 LBS. 3992 KG.											
TOTAL SKIDS	TOTAL PIECES			TOTAL NET WEIGHT											
4	4			35,441 LBS. 16,078 KG.											
L-Label Analysis of Heat P-Product Analysis of Parent Coil <b>CHEMICAL ANALYSIS</b>															
ID	C	MN	P	S	SI	CR	NI	MO	N	CU	CO				
L 7250151	.049	1.39	.027	.001	.35	18.18	8.05	.35	.04	.30	.12				
SHIPPING DATE: 03/15/2005						REMARKS NO INTENTIONAL ADDITIONS OF MERCURY OR MERCURY COMPOUNDS, RADIUM, ALPHA SOURCE, AND LOW MELTING ALLOYS OR ELEMENTS CAPABLE OF FORMING LOW MELTING ALLOYS WERE MADE THROUGHOUT THE PROCESSING OF THIS MATERIAL.									
<b>PRODUCT DESCRIPTION</b> CR SHOT TYPE 304 STAINLESS #2B FINISH SLIT EDGE * AMS 5513 * ALL TECH REQS HAVE BEEN MET UNLESS MARKED TO OR NOTED OTHERWISE * A SYN A 240 -04 EX PARA 3.1.1.1 ELONG WILL BE DETERMINED BY ASTM E 8 * ASTM A 490 -01 EX PARA 19.1.1.1 ELONG WILL BE DETERMINED BY ASTM E 8 * EX PARA 25.1.1.3 COIL WILL BE TAGGED ON OUTSIDE ONLY * ASTM A 566 -03 * IN-001 Rev 0, * IN-011 0 * BUYER PART# 74251497 * ASME SA-240 SECTION II PART A (2001 ED, 2002 ADDENDA) EX PARA 3.1.1.1 ELONG WILL BE DETERMINED BY ASTM E 8 * EN-10204 3.1.1.1															
PARENT COIL ID	FOR (R/T)	DIR (L, T, D)	COND	% ELONG 2 INCH MEASURED	TENSILE STRENGTH (KSI)	YS. % OFFSET (KSI)	ROCKWELL HARDNESS TAIL	ROCKWELL HARDNESS FRONT							
0549919-02	T	T	ASTM A 240	1.0	105.2	37.1	72	74							
*** CONTINUED ON NEXT PAGE ***															





Ryerson

3/17/2006 1:57

PAGE 002/002

Fax Server

MAY-17-2006 16:05

FROM-INTEGRIS

253-288-9833

T-726 P.008/015 F-537



AK Steel Corporation

Metallurgical Test Report

Coshocton Works

Coshocton, OH 43812

Page 2

Lot# No. 7410572

SRV No. 7410672

MILL ORDER NO. PROCESSOR ORDER NO. BUYERS ORDER NO.

17346-0191 427136-01

427136-01

PART NO.

7421007

ENGLISH UNITS - PRODUCT - METRIC UNITS  
915 NOM 44000 X COIL

INTEGRIS METALS  
PO BOX 190  
MINNEAPOLIS, MN 55440

INTEGRIS METALS  
308 "B" STREET  
AUBURN, WA 98001

PARENT COIL	POS	DIR	COND	ASTM	BEND	180	IT	PASS	TENSILE	Y.S.	2% OFFSET	ROCKWELL	ROCKWELL	HARDNESS	HARDNESS
0349918-02	T	(P/T) (L, T, D)	ASTM	PASS	180	IT	PASS								
PARENT COIL	POS	DIR	COND	ASTM	PASS	180	IT	PASS	TENSILE	Y.S.	2% OFFSET	ROCKWELL	ROCKWELL	HARDNESS	HARDNESS
ID	(P/T) (L, T, D)	(P/T) (L, T, D)	COND	ASTM	PASS	180	IT	PASS	2 INCH MEASURED (KSI)	33.1	B	72	B	74	
0349918-02	F	T	ASTM	71.0	92.8	33.1	B	72	B	74					
PARENT COIL	POS	DIR	COND	BEND	180	IT	PASS								
ID	(P/T) (L, T, D)	(P/T) (L, T, D)	COND	BEND	180	IT	PASS								
0349918-02	F	T	ASTM	PASS	180	IT	PASS								

THE ORIGINAL ANALYSIS AND PHYSICAL OR MECHANICAL TESTS REPORTED ABOVE ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY AND  
ALL TESTING IS DONE IN ACCORDANCE WITH ASTM STANDARDS UNLESS OTHERWISE NOTED

AK Steel Products

MAY 2006 9/19

THIS CERTIFIED TEST REPORT HAS BEEN OBTAINED TO A CUSTOMER'S REQUEST FROM AK  
Steel Corporation. NO FEE IS CHARGED FOR THIS REPORT. THE REPORT IS VALID FOR THE SPECIFIC  
ITEMS IDENTIFIED IN THE REPORT AND IS NOT VALID FOR OTHER ITEMS OR OTHER CONDITIONS.

SIGNED

DATE 05/19/2006 TIME 10:42 PM

APPROVED BY: STEVE KOYAN



## MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN  
740 IMPERIAL ROAD NORTH

Page : 1  
Heat/Lot : 86K9  
TIN : B42748

Sold To: INTEGRIS METALS, LTD.  
7910 40TH STREET SE  
CALGARY, AB T2C2Y3

Ship To: \*\*\*CUSTOMER PICKUP\*\*\*  
4375 14TH STREET NORTHEAST  
CALGARY  
ABT3E7A9

### Vendor Information

Cust PO #: 406B24

Chat PO DT: 11/03/05

### Specifications

STAINLESS STEEL SHEET, COLD ROLLED, ANNEALED AND PICKLED.  
ASTMA240/04a 480/04a, 666/03, ASMESA240/04-A05, 480/04-A05, SA666/04  
QOS766D-A X 11G PRM, AMS5513H X MRK&FIN, MIL5059D, AMD3, X CRWN MEAS  
CORROSION: ASTM A262/02aB; 180Bend-OK  
Buyer Part: 4288441  
304 2B .1305 IN 48 IN 96 IN  
Country of Origin: UNITED STATES

### Mechanical Tests

		UOM	L	O	UOM	L	O
Yield Strength - 0.2% Offset	40	KSI	F	TRANSV			
Tensile Strength (UTS)	93.3	KSI	F	TRANSV			
Rockwell B	85		F	TRANSV			
Pct Uniform Elong 2 In/50mm	57.01	PCT	F	TRANSV			
Rockwell A	85		T	TRANSV			

### Chemical Composition

C Carbon-Fct	.059	CR Chromium-Pct	18.360
CU Copper-Fct	.342	MN Manganese-Pct	1.643
MO Molybdenum-Pct	.285	N Nitrogen-Pct	.037
NI Nickel-Fct	8.150	P Phosphorus-Pct	.029
SI Silicon-Fct	.289		

### Comments





## MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN  
740 IMPERIAL ROAD NORTH

Page : 2  
Heat/Lot : 86K8  
TIN : B42748

Material free from mercury contamination. No weld repairs.  
EN 10204 3.1 PED 97/23/EC Annex1, Para. 4.3 Q08763F Cond A  
This document certifies the material has been tested in  
accordance with applicable specifications described herein  
and has met those requirements.

QA by ERIC HESS 02/01/2006

### Miscellaneous Data

GUKLPH , ONNE K123  
Control #: 91C60214  
Part #: 74271441  
.135 X .48 X .96

Date: 03/17/06

SOLD TO: INDIAN LAKE

TO 110880

S/O 90-374786 - 02

*Eric Hess* 3/17/06

The Chemical Analysis and Mechanical Test  
data was received via EDI from the above  
mentioned vendor.

INTEGRIS METALS, LTD.

004/004

INTEGRIS METALS

03/17/2006 14:18 FAX 6042729137  
04/20/2015 08:27 FAX

